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BEYOND THE BOUNDS OF RATIONALITY.(U)

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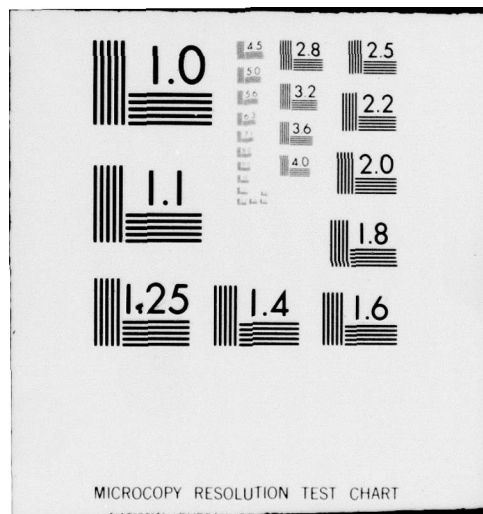
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CONFERENCE REPORT: BEYOND THE BOUNDS OF RATIONALITY

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This conference report describes the activities of a radical workshop on organizational design, entitled "Beyond the Bounds of Rationality". Topics discussed were reappraisal of the limits of rationality, identification of alternatives to rationality, connections among extra-rational and non-rational phenomena from diverse disciplines, suggestions for research, and lessons for organizational health and survival.		

CONFERENCE REPORT

Title: Beyond the Bounds of Rationality

Place: Asilomar, California

Dates: August 31 - September 2, 1977

Sponsors: Naval Postgraduate School and Office of Naval Research

Program Chairmen: Professor Carson K. Eoyang, Naval Postgraduate School
Professor Reuben T. Harris, Sloan School, M.I.T.

I. Background.

In 1975 a series of radical workshops on organizational design was begun under the sponsorship of the College of Organizations, the Institute of Management Sciences. The first workshop was conducted by Professor Louis R. Pondy at the University of Illinois and the second by Professor Arie Lewin at Duke University. The basic idea behind these workshops is to provide exceptional opportunities for organizational scientists to meet and work together intensively in the exploration of frontiers of organizational research. These workshops differ from traditional conferences in that they are designed to maximize intellectual interaction over new and interesting ideas that are perhaps not yet clearly defined nor precisely articulated. Thus, the presentation of finished, polished, papers already suitable for publication is not encouraged. Instead, the focal points of discussion would be novel, imaginative, stimulating concepts related to advancing the state of the art in organizational science. The purpose of the workshops is to initiate and encourage the development of fresh approaches to the study of organizations. It is expected that much if not all of the material explored during the workshop would represent work in progress rather than completed research.

With this spirit in mind, the theme for the third workshop sponsored by NPS and ONR was "Beyond the Bounds of Rationality: Alternative Perspectives on Organizations." The choice of this topic was motivated by the observation that in recent years there is a substantial variety of research and literature that seemed to be linked by a common thread. While much of the mainstream of organizational research has been characterized by norms of rationality (most notably by Thompson, but also, expectancy theory, path-goal models, contingency theory, etc.) there have been of late a number of challenges to the rational perspective and its inadequacy in explaining complex organizational phenomena. The limits of cognitive rationality is hardly a new concept having been articulated by March and Simon almost twenty years ago. They also suggested alternative modalities of decision making, such as satisficing and heuristic problem solving. Lindblom's notions of muddling through have also enjoyed no small measure of popularity. Indeed, much of

the literature stimulated by bounded rationality have by and large addressed heuristic coping strategies to deal with the complexity, ambiguity, uncertainty, and chaos that afflicts so many of our formal institutions. However, some of the recent literature could be interpreted as advocating entirely new approaches. Rather than suggesting the decomposition and resolution of complexity, some theorists have argued for the acceptance and perhaps the elaboration of complexity as an alternative view. These ideas can be illustrated by the following examples.

Organizations are currently no longer perceived as only bureaucratic mechanisms for the accomplishment of collective goals but also in terms of randomness, chaos, and mysticism. Specifically, they have been described as organized anarchies (Cohen and March), loosely coupled systems (Weick), purveyors of magic (Pondy), and collections of see-saws (Nystrom, Hedberg, and Starbuck). Depending upon the view adopted, normative prescriptions regarding the management of such organizations include developing a technology of foolishness, experimenting with failure, the generation of myths, the emphasis of emotionality, and the cultivation of contradictions.

Similar propositions can be found in certain fields of contemporary psychology. Leavitt and Mintzberg have each discussed extra-rational approaches to managerial problem solving. Ornstein, Tart, and others have explored alternative states of consciousness and their psychological value in adapting to increasingly complex and bewildering environments. Argyris has proposed unconventional methods of learning which involve the partial rejection of experience. Other potentially relevant research include neurophysiology, (e.g., the split-brain studies) cognitive styles, and even certain topics in parapsychology. The point of this brief discussion is not to detail ongoing research that goes beyond the paradigm of rationality, but rather to illustrate the wide variety of thinking that may have rich and meaningful inter-connections. The purpose of the workshop was to explore the territory as broadly as possible in order to facilitate more intensive development that may follow.

In particular, the objectives of the workshop are to stimulate thinking and writing on this scientific frontier, to establish communication and cross-fertilization among diverse schools of thought, and perhaps to produce original papers. The design of the workshop consisted of having twenty-five scientists and academics meet in Monterey for two and a half days.

II. Description of Events

A. The specific agenda for the workshop included the following:

- Reappraisal of the limits of rationality
- Identification of alternatives to rationality
- Connections among extra-rational and non-rational phenomena (intellect-intuition, analytic-iconic) from diverse disciplines (psychology, education, engineering, sociology, biology, politics, religion)

- Suggestions for research (developmental or integrative)
- Lessons for organizational health and survival

B. The schedule of activities was as follows:

- Wednesday, August 31
 - 3:00 Check-in and Registration
 - 4:30 Refreshment and Renewal
 - 6:00 Dinner
 - 8:00 Introductions
- Thursday, September 1
 - 7:30 Breakfast
 - 8:30 First Discussion
 - 12 Noon Lunch
 - 2:00 Second Discussion
 - 4:30 Refreshment and Renewal
 - 6:00 Dinner
 - 8:00 Third Discussion
- Friday, September 2
 - 7:30 Breakfast
 - 8:30 Final Discussion
 - 11:30 Conclusion
 - 12 Noon Lunch

C. The names and affiliations of participants were:

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Thomas Cummings
University of Southern California

Terry Connolly
Georgia Institute of Technology

Anne S. Huff
UCLA

Dr. Bert T. King
Office of Naval Research

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III. Implications

- A. Summary of topics discussed.
The following notes describe the discussions conducted by the various panels devoted to specific topics.

1. Organizational Decision Making

A. Although we academics and managers use the terms "decision" and "choice" we do not have yet a good understanding of what constitutes "decisions" or "choices".

B. We do not have any typology of choice situations or taxonomy of decisions - yet believe that there are likely to be multiple different phenomena not amenable to application of a single decision-making model.

C. What different patterns of decision-making process seem to emerge from different choice situations?

- seminal
- incremental
- frequent/infrequent
- crisis/catastrophic
- routine/non-routine

D. Do some conditions produce the phenomenon whereby individuals believe they have no discretion - yet organizationally choice would appear to have been exercised?

(structure/environment/history)

E. How do organizations attempt to create conditions under which "rational decision-making" can be obtained? How do organizations decouple - either structurally or temporally or through marker mechanisms.

F. How can we integrate organizational learning into "rolling" models of evolving choice situations.

G. How do people get to feel they are (about to) make a decision?

H. What "events" precipitate this?

I. Time decision in prospect, in retrospect?

J. Can we trace the unfolding of organizational decisions.

K. Which decisions "unfold" into "major" decisions?

L. What about decision discretion? What is decision process discretion (is it for example, micro random, macro-predictable)?

M. Can the decision/choice labelling process be "arranged" and at whose discretion?

N. Can "trivial" decision typologies be usefully constructed? Can "trivial" decisions/outcomes at a micro-level, at a macro level?

O. Can the efficiency-flexibility "paradox" be managed? If so, at a micro level, at a macro level.

2. Rationality vs Irrationality

Topic: Can decision-making situations be characterized in terms of rationality versus irrationality?

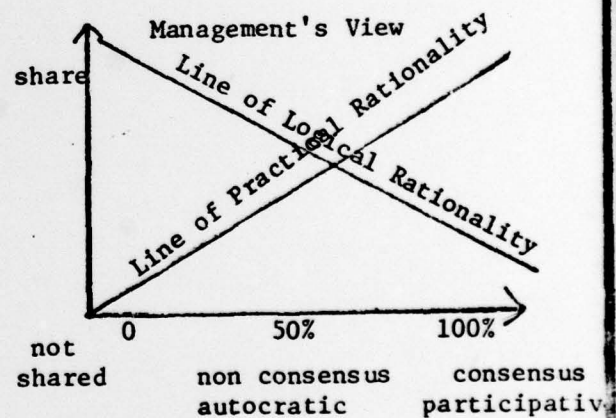
Focus: Examination of the interaction and consequences of degree of "shared perception of environment" and the "decision characteristics" (style, method)

Dimensions - "shared perceptions of environment" - degree to which key actors, subsystems, etc. share a common view or theory of how its environment behaves

- "decision characteristics" - managerial style in decision-making (autocratic-participative); decision-making method (consensus-non consensus)

Typology for characterizing organizational decision-making situations

Degree of Shared Perception of Environment			
		Shared	Not shared
consensus/ participative	1		2
non consensus/ autocratic	3		4



Researchable Issues

A. Examine consequences of 1, 2, 3, 4 (Table) for original outcomes e.g., performance, conflict, commitment to implementation.

B. Examine dynamics over time, if 1, 2, 3, 4 @ time₀, what happens @ time₁ and intermediate dynamics (morale, communication, commitment, etc.)

C. Examine consequences of discrepancy between "line of logical rationality" and "line of practical rationality".

3. Research Methods

Design I

1. Study 4-5 cases (interactive) process of writing-learning
2. Get inside managers world through legends etc. that they use to give meaning to it
3. Managers as participants in research
4. Psychological instruments (cognitive style)
5. Longitudinal (4-5 years)

Design II

1. Choose extreme examples (2-3) System in transition and role myths and metaphors play
2. Understand each in depth separately
3. Theory of the case for each case
4. Use "dancing partner" approach to synthesize.
Use theory of Case A to interpret B and theory B to interpret A - which gives new theory
5. Then loop back to get more extreme cases suggested by new theory

Design III

1. Poll practitioners about ambiguity. Get: pool of ideas, vocabulary, screening for "sensors" (people interested in this to keep working with)
2. Select hospitable setting and use nominal group effort to get a short list of most descriptive characteristic of the situation with comments (could use Q sort with the long list of descriptions group generated)

Design IV

1. Theory building through grounding iteration (head toward closure to where nth case adds nothing)
 - a. 3 cases and make theory, then 3 more cases and revise and over and over
2. concern with biases

Design V

4 dimensions of ambiguity

1. Confusion about goals and objectives
2. Confusion about the means/ends chain
3. Uncertainty about input requirements in money and power and environment
4. Uncertainty of meaning (the "so what" question)

Research for each dimension of ambiguity

1. MBO techniques - measure how ambiguous goal situations are and what variance is
 - a. how specific are goals
 - b. how much goal consensus
2. Do you know what you have to do in order to reach the goal - how certain are you?
how deterministic is the technology?
what are the error bounds on your uncertainty and how well do you know them?
3. How much variance over time in organizations resources?
 - a. particular situation
 - b. consensus
4. "Belief" on significance, causes, reasons go back get antecedents for ambiguity and decide if you can do something about it or look ahead to consequences of ambiguity or look at coping styles for people in different levels of ambiguity

Three questions of methodologist to Model II

1. How can you be sure you've tapped the full pool of variance for the theory?
2. How do I know I've kept my biases out of it and gotten their concerns?
3. How do I know my theory is valid?

4. Measurement of Performance

T. S. Eliot once said of the analysis of one of his poems by a critic: "...it was an attempt to find out what (it) really meant - whether that was what I had meant it to mean or not. And for that I was grateful." Reading Eliot presumes an active role of interpretation. Writing Eliot presumes an imaginative use of ambiguity - writing something that permits more interesting interpretations than were known consciously by the poet.

Managers are not always poets, but there is something to be learned about managerial control from Eliot's perspective on his poetry. As in poetry, precision in the statement of organizational objectives and the measurement of managerial performance with respect to them is often useful, but not always. In particular, we can identify at least three arguments for moderating our unrestrained enthusiasm for precise performance measures:

1. Where contradiction and confusion are essential elements of the values underlining the organization, precision misrepresents them.
2. The more precise and important an index of performance is made, the greater incentive a manager has to find ways of scoring well on the index without regard to the underlining goals.
3. Precision in specification of objectives does not allow creative interpretation of what the boss meant - an interpretation a good boss may often want to stimulate (a la Eliot) rather than inhibit.

Thus, every introduction of precision into managerial evaluation and the incentives associated with evaluation involves a trade-off between the gains in outcomes attributable to closer articulation between action and performance on an index and the losses in outcomes attributable to misplaced precision in measurement, reduced motivation to develop interesting interpretations of goals, and concentration of managerial effort on irrelevant ways of beating the index.

If you give us suitable time, we will happily develop a general theory of such a trade-off and thus recapture ambiguity for rationality. The time may, however, be infinite. As an alternative, one might urge more bosses to read Eliot, fewer to read optimal control theory.

IV. Workshop Assessment

The intention of creating different and stimulating intellectual experience was successfully realized. There was general consensus among the participants that the discussions, although at times indeterminate, were provocative and frequently controversial. The ideas expressed were far ranging and explored rich and innovative connections from a wide variety of disciplines.

The patterns of interaction and moods experienced during the workshop were strongly influenced by an initial paradox. Is it an inherent contradiction to explore non-rational or irrational ideas using conventional (rational) conference processes? In one respect, the workshop reflected this dilemma by capitalizing on the tension between and among proponents and opponents of rationality. The workshop structure was intentionally under defined to minimize the imposition of the organizer's "rationality" and to maximize the opportunities for alternatives of whatever kind to emerge. A singular virtue of this workshop design was that not only were issues and problems associated with rationality exercised cognitively, but for many participants the issues were experienced at several levels, e.g., emotionally (frustration, excitement, etc.), physically (arousal, lethargy), and even psychically (via dreams). Thus the workshop modelled many of the phenomena which were the subject of discussion.

In summary, this Third Radical Workshop on Organization Design provided an exceptional opportunity for organizational scholars to explore collaboratively novel and unusual interests not normally available through traditional conferences and meetings.

V. Outcomes

Among the immediate outcomes of this workshop was the establishment of active communications among academics from different disciplines and schools but with strong common interests. The creation of an informal network of scholars would have been more cumbersome and inefficient without this meeting. In addition the extensive communication has initiated the compilation of relevant literature which should facilitate future research in the area.

Among the intermediate outcomes has been other events at national conventions and regional seminars which were stimulated by our experiences at

Asilomar. Professor Louis R. Pondy convened a workshop along similar lines at the University of Illinois on the subject of organizational symbolism, a key topic of our discussions. Also a session on symbolism at the national meetings of the Academy of Management was one of the most crowded sessions at the convention.

Among the potential long term outcomes are specific publications derived from the initiatives begun at Asilomar. A book of readings on "Organizational Rationality: Concepts, Limits, and Alternatives" is in the process of being prepared. A conceptual essay on a taxonomy of rationality is in the preliminary stages. Finally it is highly probable that a research proposal on rationality and its alternatives will be funded by the Navy Electronic Systems Command in conjunction with their extensive program in Command, Control, and Communication. The proposal has been submitted and the research will likely commence in January 1980.

While all the benefits of this workshop have not yet been realized, the indications are that the modest investment of the workshop sponsors have and will generate substantial returns over time.

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